Quartz Crystal Oscillator

Hcmos Output with Enable/Disable

7x5mm Low Current Clock Oscillator

RoHS compliant 2002/95/EC

Static sensitive device

Current part - Recommended for new designs

Frequency Stability Options

Operating Temperature Range		Frequency Stability (PPM)					
		±15	±20	±25	±30	±50	±100
Standard	-0°C to +70°C	N/A	N/A	N/A	N/A	BS	CS
Industrial	-30°C to +85°C	N/A	N/A	N/A	N/A	BI	CI

Operating Conditions

Storage Temp	-55°C to +125°C

Option Codes

Supply Voltage	Option Code
+3.3V DC	0
+2.8V DC	28
+2.5V DC	25

Marking & Specification Code Format

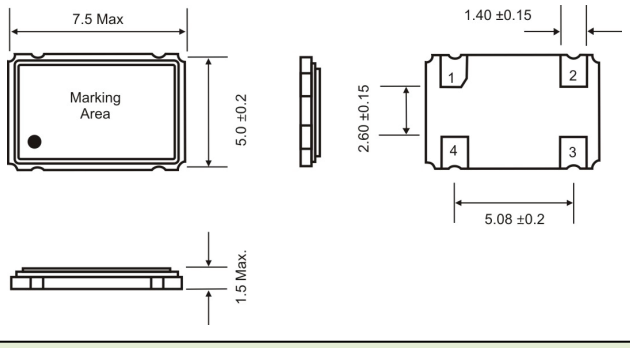
Type	Voltage Code	OTR/Stability	Frequency	WWYY
471	See right panel	See Above	ie 20.000	1611

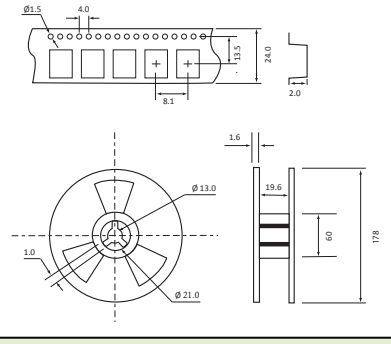
Electrical Characteristics Ta = +25°C, Note Inclusive of V_{DD} ±10%, Load Change ±10%, Ageing, Shock & Vibration

Parameter	Condition	V_{DD} = +2.5V	V_{DD} = +2.8V	V_{DD} = +3.3V
Input Current	1.80 to 31.999	1.5mA Max.	2.0mA Max.	2.5mA Max.
	32.0 to 50.000	2.5mA Max.	3.0mA Max.	3.5mA Max.
Frequency Stability	All Conditions (See Note)	See Options Above		
Symmetry	@50% V_{DD} Level	45/55%		
Output Voltage	"0" Level	10% V_{DD} Max.		
	"1" Level	90% V_{DD} Min.		
Rise Time	10% to 90% V_{DD}	12nS Max.		
Fall Time	90% to 10% V_{DD}	12nS Max.		
Start Up Time	0V to V_{DD}	5mS Max.		
Output Load	HCMOS Load	15pF Max.		

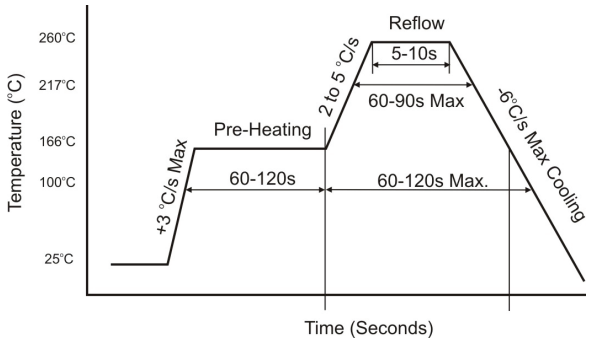
Dimensions (mm)

1,000pcs/Reel





Reflow Solder Profile (260°C)



Pin Connections

Pad #	Connection
#1	E/D
#2	Ground
#3	Output
#4	V_{CC}

Enable/Disable Function	
Pin 1 Input	Pin 8 Output
Open	Enable O/P
$V_{IH} \geq$ 2.0V DC	Enable O/P
V_{IH} < 0.8V DC	Disable O/P

© AEL Crystals Ltd Tel: +44 (0) 1293 789200 Fax: +44 (0) 1293 789490 email: sales@aelcrystals.co.uk